Marmara Pharmaceutical Journal, 2017, vol.21, N4, pages 987-991

The action of monoterpenoids with promising antiparkinsonian activity on fertility of Drosophila melanogaster

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Abstract

© 2017, Marmara University. All rights reserved. Adequate treatment of Parkinson's disease is an important medical issue. Patients are suffered from numerous side effects of the widely used drugs. It has been found recently that monoterpenoid (1R,2R,6S)-3-methyl-6-(prop-1-en-2-yl) cyclohex-3-ene-1,2-diol and its diacetate demonstrate high antiparkinsonian activity in some animal models. At the same time, their genetic safety was not studied yet. The aim of this research was to investigate the effect of these compounds with antiparkinsonian activities on reproduction of D. melanogaster. Over 4000 of fruitflies cultivated under the action of these compounds were analyzed. It was found that the chemicals did not provoke genetic mutations or alter reproduction of D. melanogaster. The possible explanations for the detected phenomena are provided. It was found that the compounds do not affect fertility in Drosophila..

http://dx.doi.org/10.12991/mpj.2017.29

Keywords

(1R,2R,6S)-3-methyl-6-(prop-1-en-2-yl)cyclohex-3-ene-1,2-diol, Acetate, Drosophila, Fertility, Parkinson's disease, Terpene

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